



Kent County Road Commission

Long-Range Strategic Plan for Primary Roads

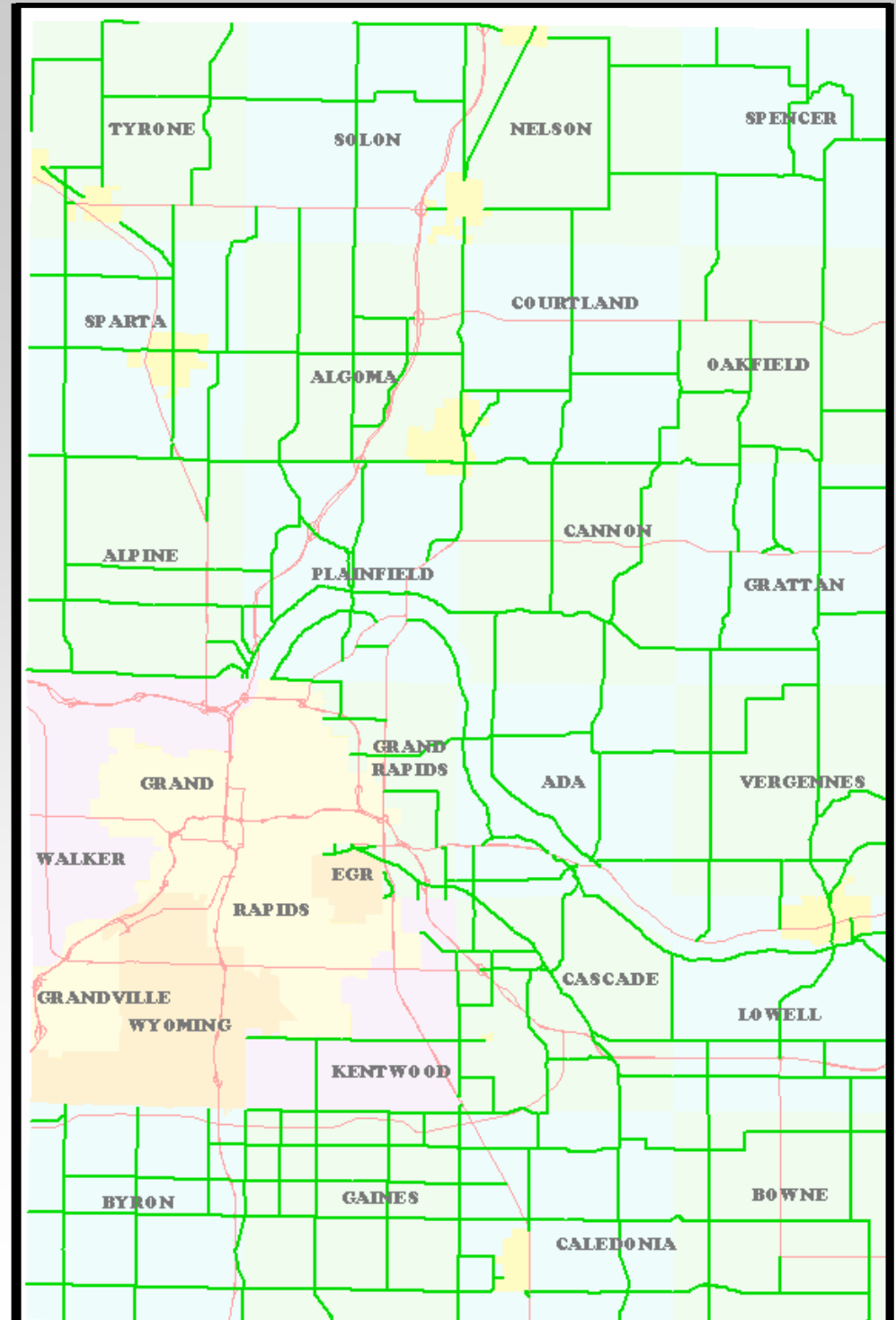
Steve Warren & Mark Jansen

Michigan Transportation
Asset Management
Conference

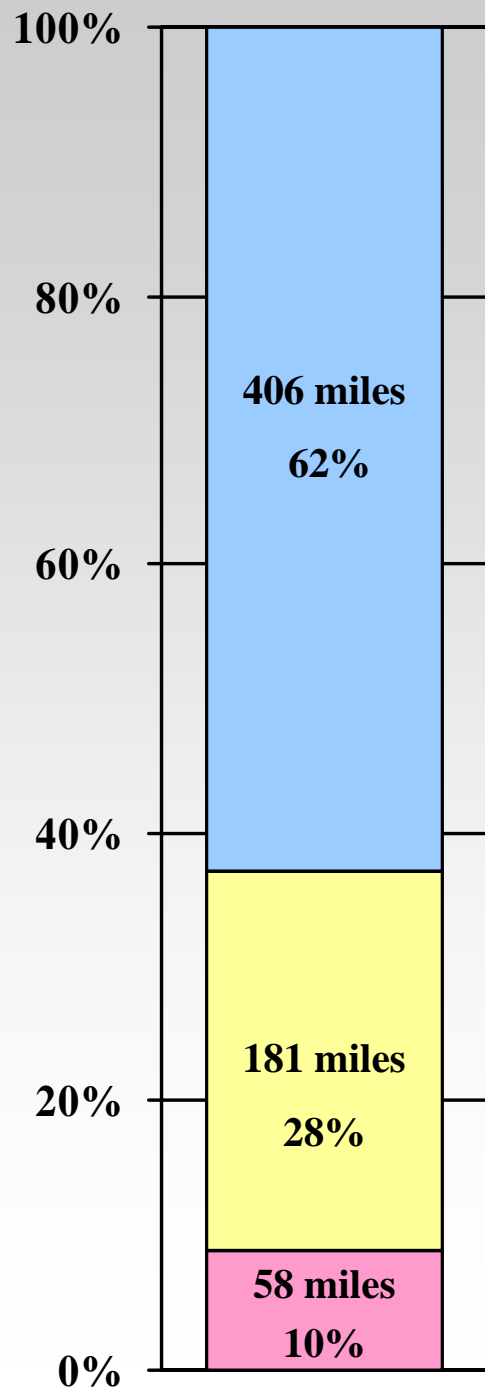
May 10, 2006

Kent County Primary Roads

- 645 Miles
- 100% Paved
- 238 “All-Season” Miles
- 641 Federal Aid Eligible Miles



2005



Good: maintain



Fair: preserve



Poor: reconstruct



Vision?

- Are we satisfied with current conditions?
- Are conditions getting better or worse?
- What condition levels do we want?

Strategy?

- \$\$ to Sustain
- \$\$ to Improve
- Trade-Offs?

KENT COUNTY ROAD COMMISSION - FIVE YEAR IMPROVEMENT PROGRAM (2005-2009)

ROAD	LIMITS	IMPROVEMENT	SOURCE OF FUNDS			
			KCRC	GRANT	PROGRAM	LOCAL
2006						

Expansion / Construction

Division Ave.	68th to 60th	Reconstruct / widen	\$780,000	\$1,220,000	STP-U		\$2,000,000
Wilson Ave.	68th to Wyoming C.L.	"	150,000	350,000	STP-U		500,000
West River Dr.	Pine Island to Safety	Center turn lane	1,500,000				1,500,000
Kalamazoo Ave.	68th to 76th	"	1,200,000				1,200,000

Maintenance / Preservation

Spaulding Ave.	Burton to Cascade	Reconstruct	300,000				300,000
Patterson Ave.	84th to 92nd	"	460,000	656,073	STP-R		1,116,073
Patterson Ave.	44th to 36th	Resurface	600,000				600,000
44th Street	Bowen to Applewood	"	170,000	220,535	STP-U	60,000	450,535
Bridges	Various locations	Repair/maintain	412,000				412,000
Overlays	"		1,500,000				1,500,000
Surface Treatments	"		600,000				600,000

Intersections

Maintain Investment in Preservation

36th St.	@ Patterson	Capacity/safety improvement	0	300,000	BMill		300,000
68th St.	@ Burlingame	Capacity/safety improvement	300,000				300,000
76th St.	@ Wilson Ave.	"	300,000	200,000	Safety		500,000
44th St.	@ Shaffer Ave.	"	160,000	480,000	CMAQ	60,000	700,000
West River Dr.	@ Jupiter Ave.	"	16,000	64,000	CMAQ		80,000
Various locations		"	300,000				300,000
Total			\$8,748,000	\$3,490,608		\$120,000	\$12,358,608

Note: Resurfacing of 28th St. from Kraft Ave. to Cascade Rd. will be obligated in 2006 but expenditure of funds and construction will occur in 2007.

* This document is prepared for planning and programming purposes, consequently the projects listed are subject to change.

() Indicates that project is contingent upon state/federal grant assistance.

5/8/2006

Asset Management Approach

- 1) System preservation and safety
- 2) Major corridor reconstruction and expansion

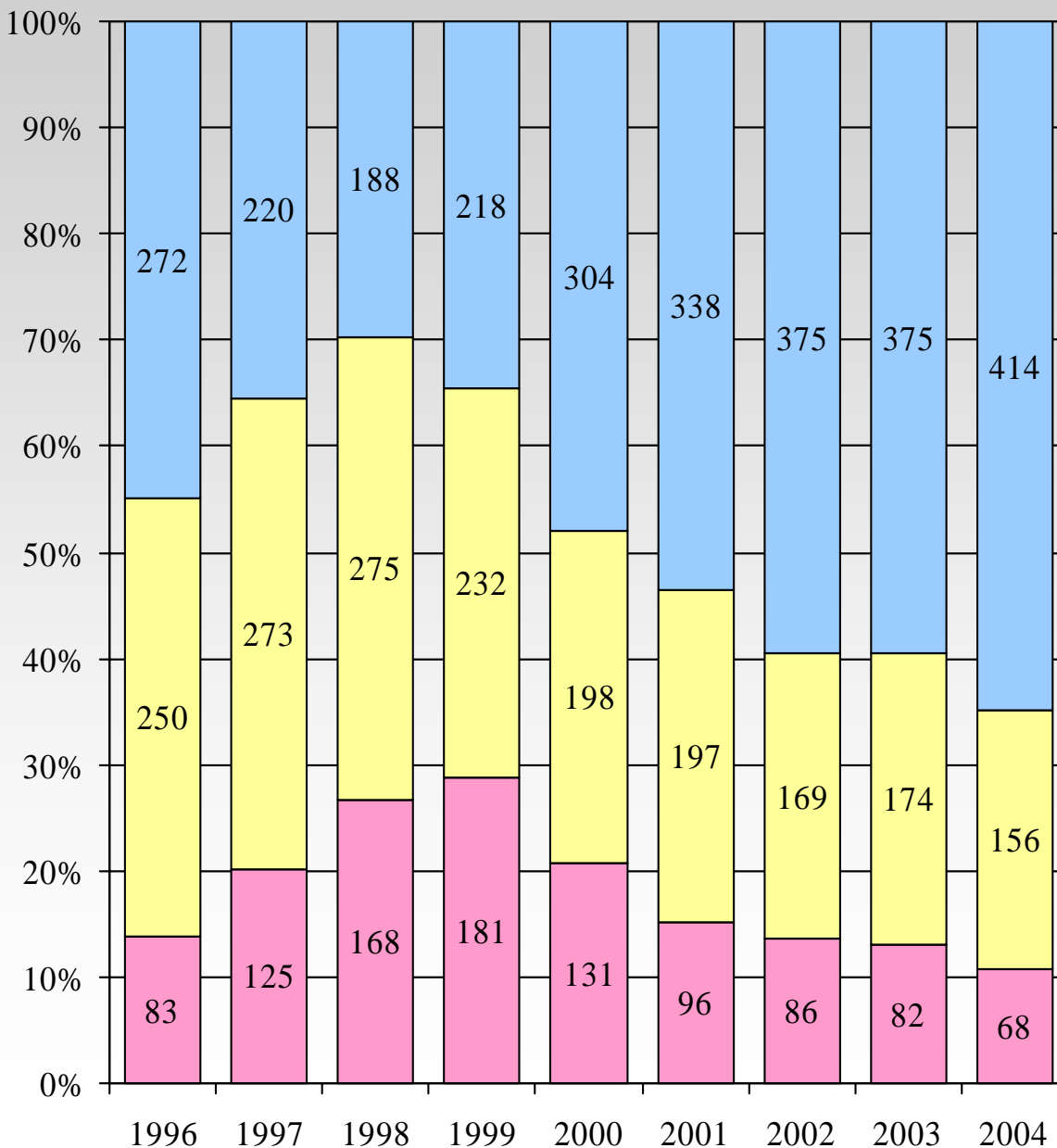
Vision: What do we want to achieve?

- Surface Conditions (PCI – Pavement Condition Index)
- Level of Service (Volume/Capacity)
 - Intersections
 - Corridors
- Seasonal Restrictions (location of All-Season Routes)

Strategy: How will we achieve it?

- Levels of investment by improvement category
(i.e., What, When, and Where)

PCI Distribution of Primary Roads 1996 - 2004



Since 1999 . . .

Increase Preservation Investment

Improved Road Condition

**Average Annual Investment
1995-2004**

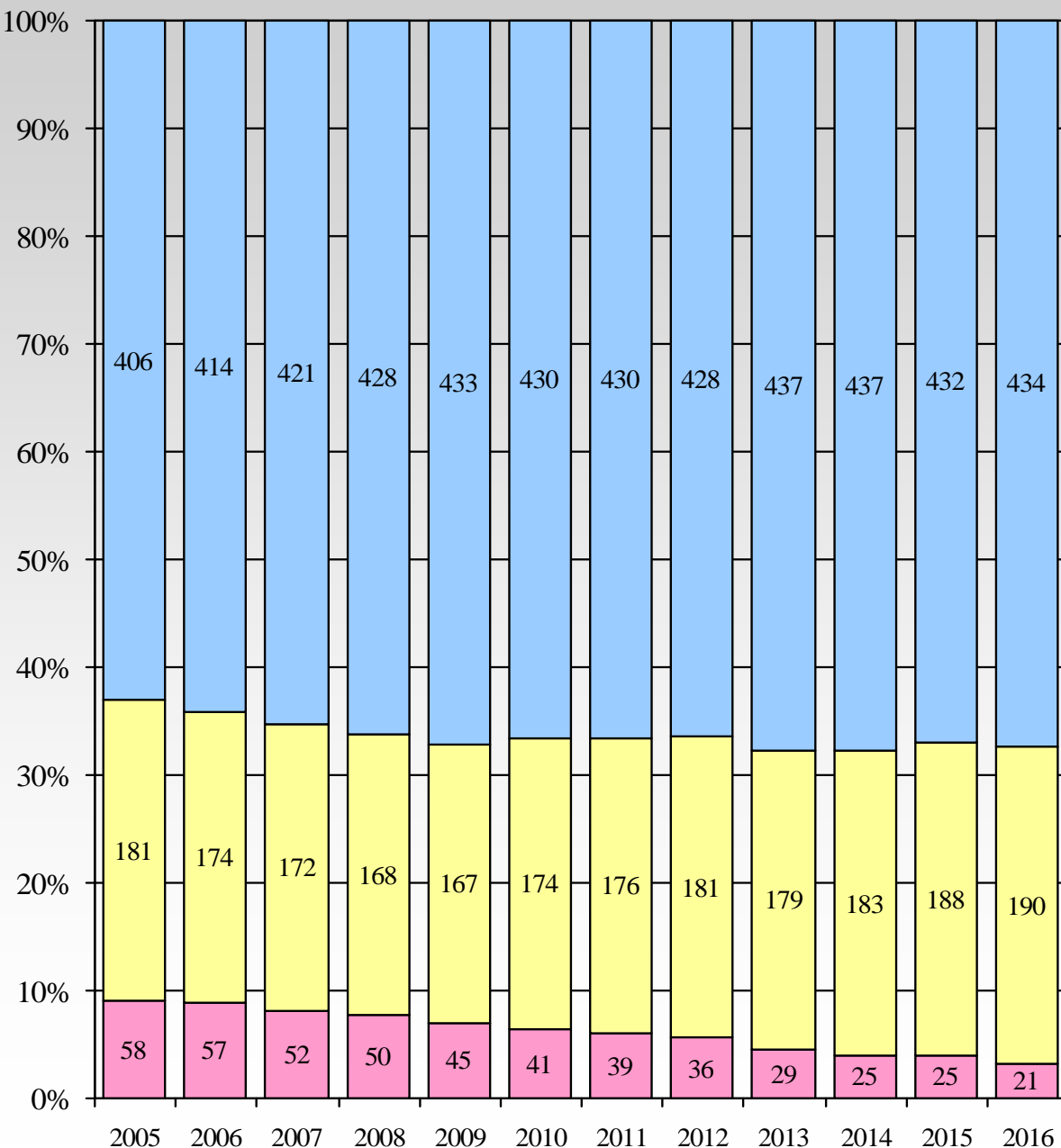
Expand

Reconstruct

Preserve



PCI Distribution of Primary Roads 2005 - 2016



Preservation 2005 – 2016

Resurfacing: 183 Miles
\$26.2 Million

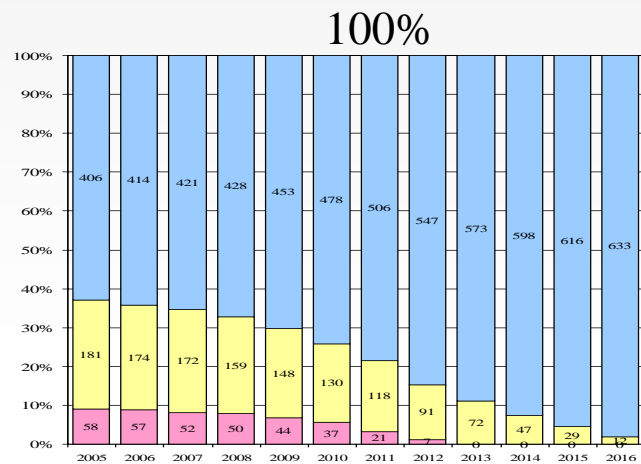
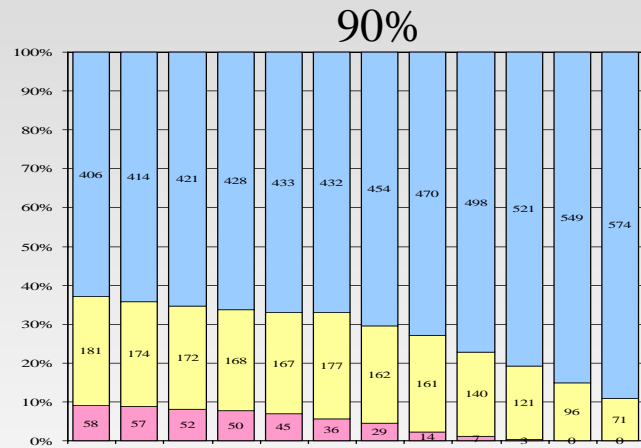
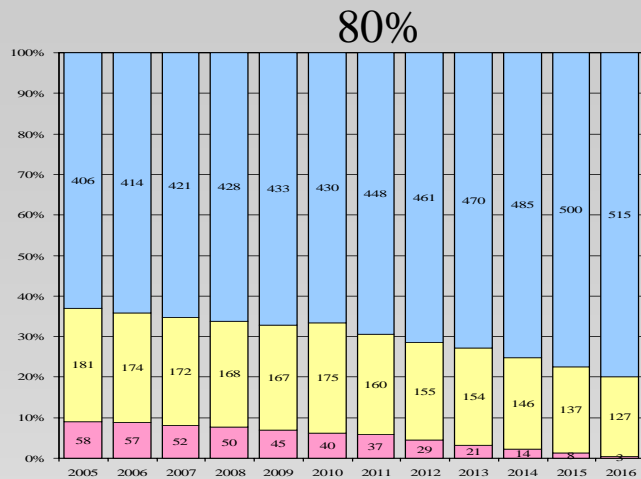
Surface
Treatments: 475 Miles
\$42.0 Million

Total 658 Miles
\$68.2 Million

Results in 2016:

Stabilize the system
condition

70% in Good condition

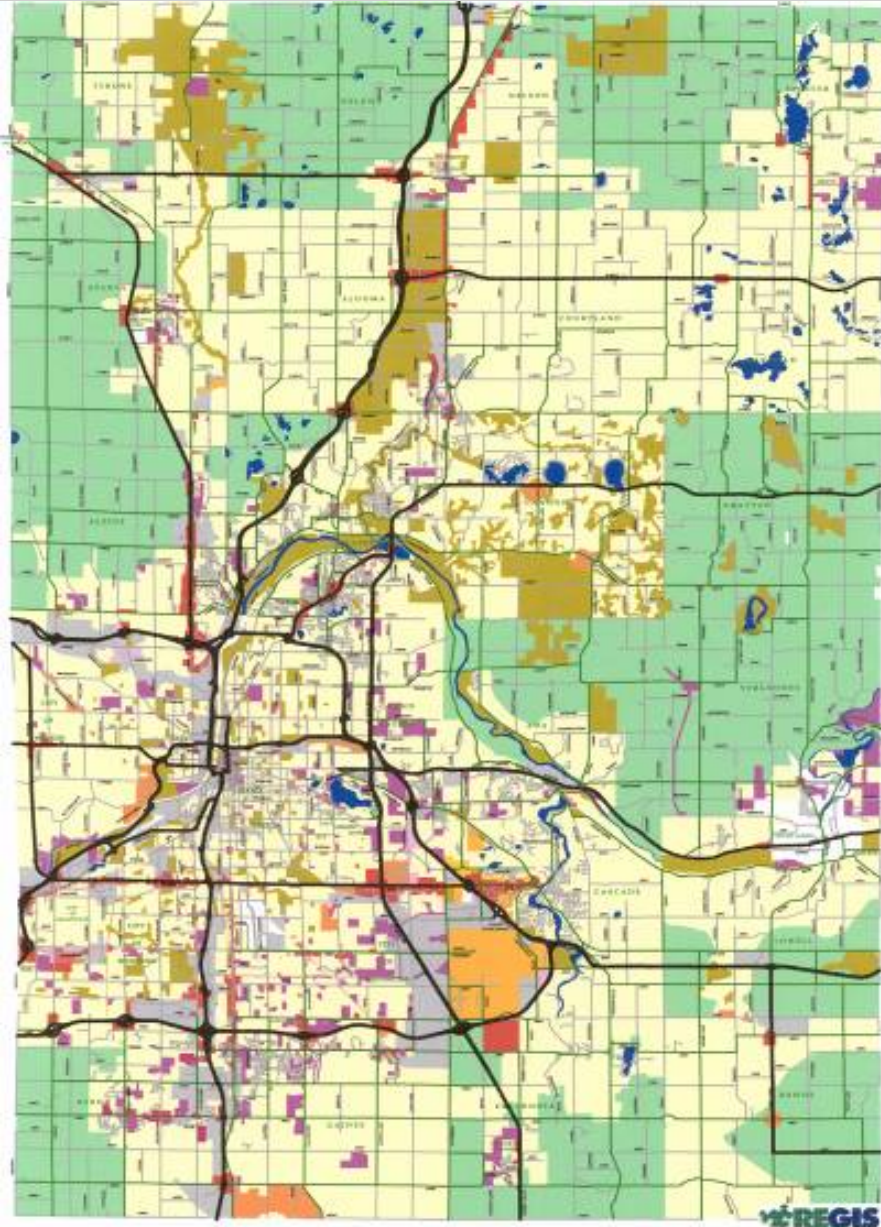


Investment Strategies

% of System Condition PCI > 70

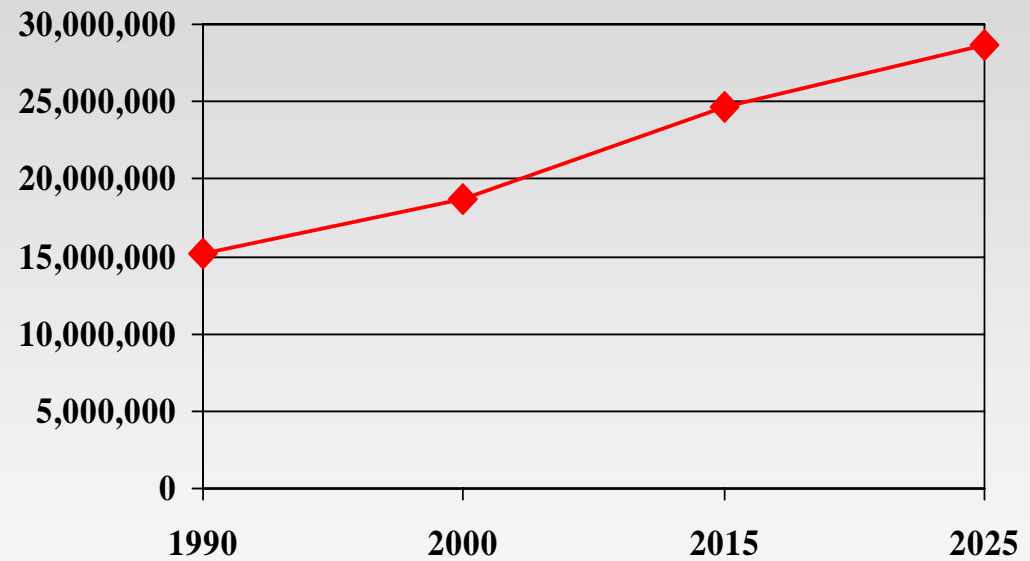
	Surface Treatments		Overlays		Total
	Miles	\$	Miles	\$	\$
70%	475	\$42.0	183	\$26.2	\$68.2
80%	565	\$50.5	215	\$30.7	\$81.2
90%	650	\$58.0	245	\$35.1	\$93.1
100%	735	\$65.4	275	\$39.4	\$104.8

Kent County Growth



Population + 24%

Travel (VMT) +32%



Intersection Safety Investment Needs 2005 - 2016



- Add turn lanes & signals

- Avg. 3/4 locations/yr.

- \$16.8 Million



Bridge Investment Needs 2005 - 2016



- Maintenance & Replacement
- Avg. 4 bridges per year
- \$9.5 Million

Corridor Congestion

Investment Needs 2005 - 2016



- Add through lanes to reduce congestion
- 26 miles of priority needs
- \$41.2 Million

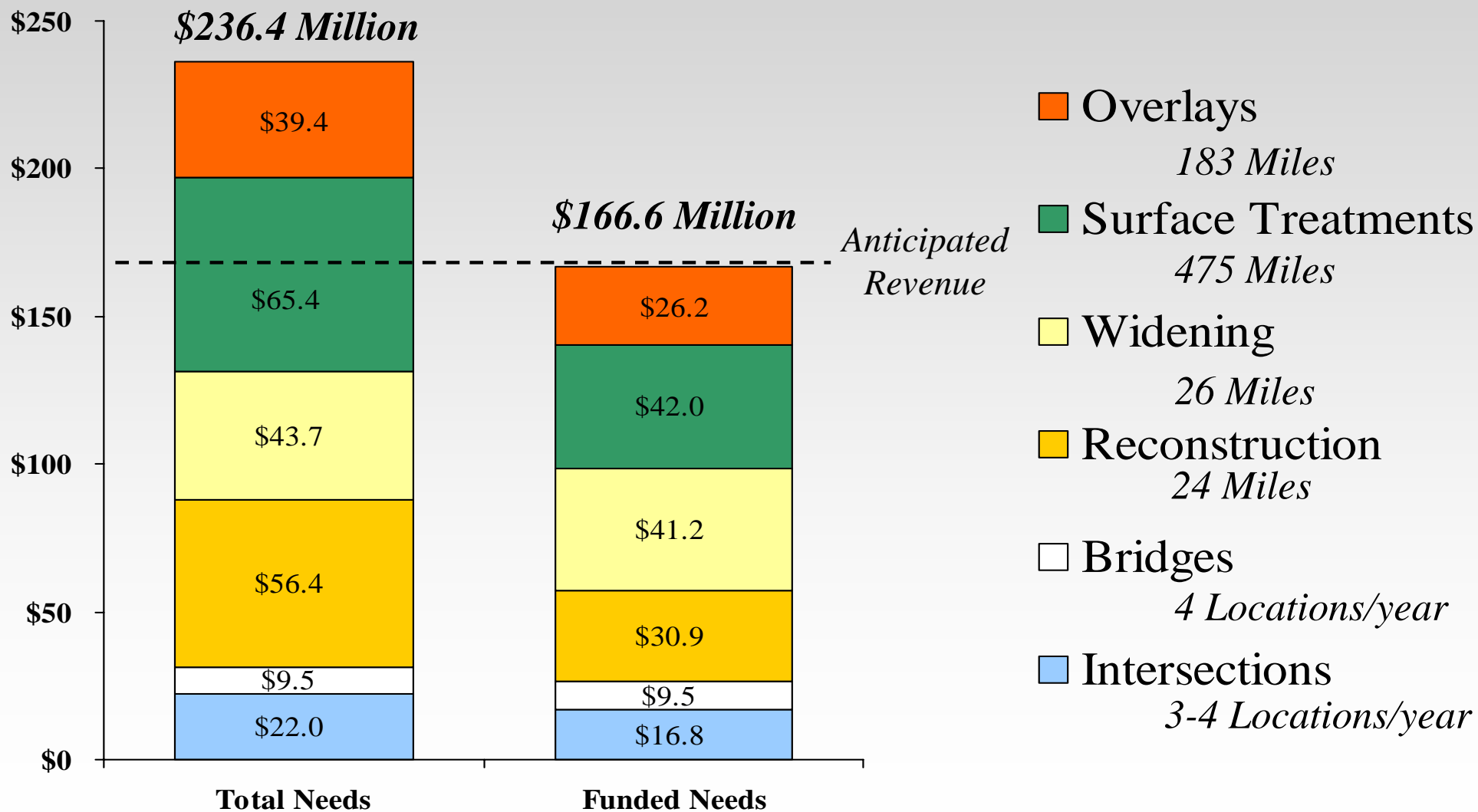
Road Reconstruction Investment Needs 2005 - 2016

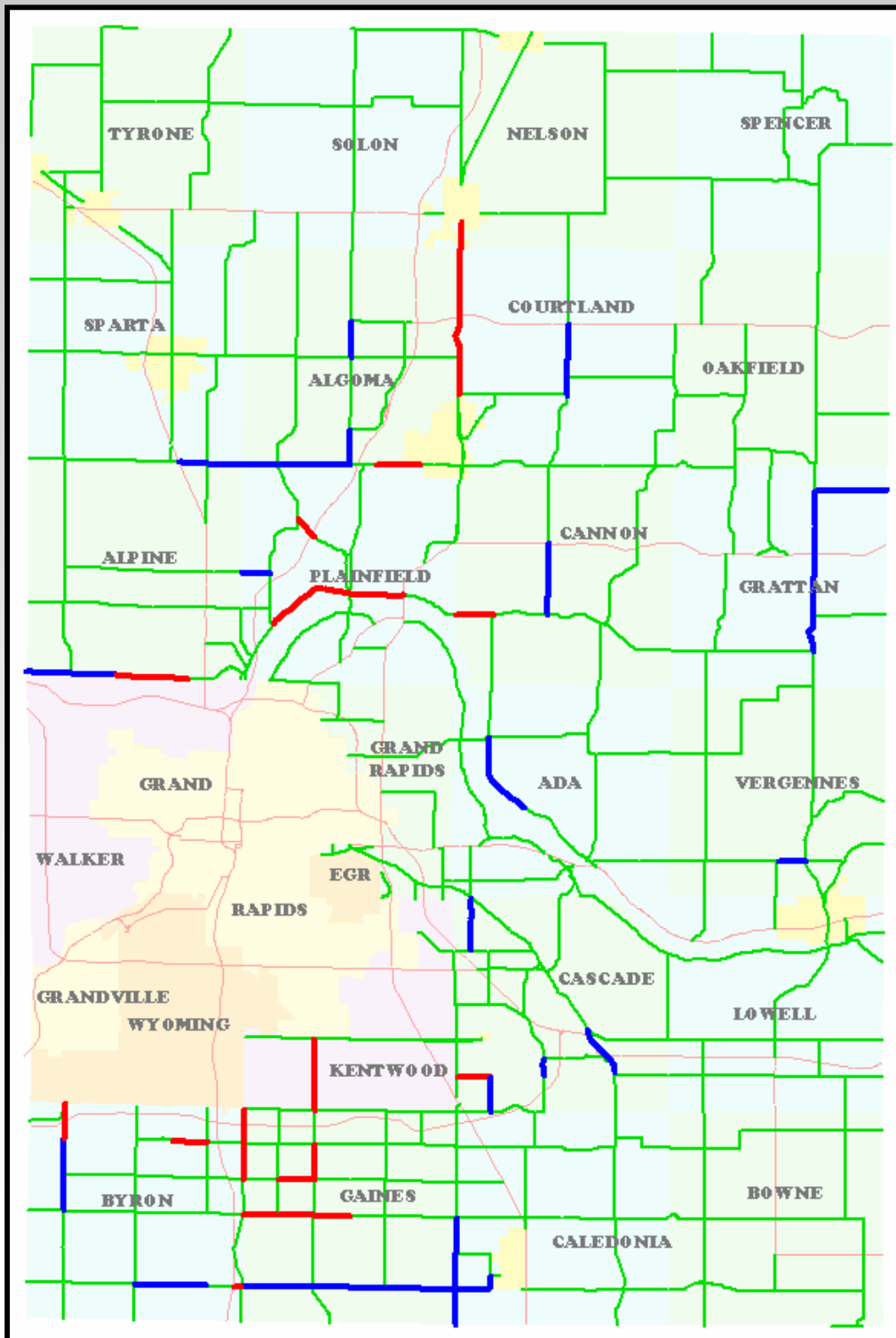


- Reconstruction - adds to the network of 'all-season' routes
- 24 miles of priority needs
- \$30.9 Million

Funding Needs vs. Planned Investment Strategy

70% System Condition PCI > 70





Planned Investment Strategy

System Condition
70% PCI > 70
(millions)

\$68.2 Preservation

\$41.2 Widening

\$30.9 Reconstruction

\$9.5 Bridges

\$16.8 Intersections

\$166.6 Total Investment

Completed vs. Planned Investment Strategy 1996 - 2016

**Avg. Annual Investment
1995-2004**

Expand Reconstruct Preserve



**Avg. Annual Investment
2005-2016**

Expand Reconstruct Preserve

